CLAIMS

1. A pile driving device for driving in piles, comprising an axially-guided impact body movable in a hammer housing, an impact hood and a pile sleeve wherein the separation between the lower end of the pile sleeve and the impact hood is less than twice the internal diameter of the pile sleeve.

2. A pile driving device according to claim 1, wherein the separation between the lower end of the pile sleeve and the impact hood is less than half the internal diameter of the pile sleeve.

3. A pile driving device according to claim 1 wherein the pile sleeve is designed to be divided into two or more parts along at least one partition line.

4. A pile driving device according to claim 3 wherein the partition line is substantially radial.

5. A pile driving device according to claim 3 wherein the partition line is substantially circularly concentric.

6. A pile driving device according to claim 1 wherein the pile sleeve comprises a seal between the parts.

7. A pile driving device according to claim 1 characterised in that the lower end of the pile sleeve has a diameter of more than 2.5 metres.

8. A pile driving device according to claim 7, wherein the lower end of the pile sleeve has a diameter of less than 8 metres.

9. A pile driving device according to claim 8, wherein the lower end of the pile sleeve has a diameter of substantially 5 metres.

10. A pile driving device according to claim 1 wherein the pile sleeve further comprises one or more adapter elements for adapting to piles of different diameter.

11. A pile driving device according to claim 10 wherein the adapter elements of the pile sleeve comprise radially disposed plates.

12. A pile driving device according to claim 1 wherein the impact hood further comprises an adapter plate at its lower end, for engagement, in use, with a pile to be driven.

13. A pile driving device according to claim 1 wherein the pile sleeve comprises a cone with a cylindrical jacket.

14. A pile driving device according to claim 1 wherein the parts of the pile sleeve have at the or each partition line flanges by means of which they are connected through mechanical connectors.

15. A pile driving device according to claim 13 wherein the cone and/or cylindrical jacket of the pile sleeve comprise a plurality of with interconnected supports.

16. A pile driving device according to claim 1 wherein the hammer housing of the pile driving device comprises a hammer foot and an adapter ring is mounted between the hammer foot and the pile sleeve .

17. A method of assembling a pile driving device for driving in piles, the device comprising an impact body axially movable in a hammer housing, a foot, where applicable with an adapter ring, an impact hood and a pile sleeve, wherein the method comprises the steps of

a) setting the impact hood on an assembly block

b) disposing the pile sleeve parts around the assembly block and the impact hood and

c) connecting the flanges of the pile sleeve are together.

18. A method according to claim 17 wherein the hammer foot, impact body and hammer housing are pre-assembled into a structural group, and are fixedly connected to the impact hood.

19. A method according to claim 18, wherein the structural group further comprises a adapter ring.

20. A method according to any of claims 17, wherein the impact hood is initially set on an adapter plate.

21. A method according to any of claims 17, wherein the parts of the pile sleeve are connected pressure tight.